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ABSTRACT

This booklet outlines a comprehensive fire and burn injury prevention program which includes an instructor's manual, a videotape, and a test: the video provides additional information and examples of injury prevention techniques, and the test measures the amount of knowledge acquired. Following an introduction, the prevalence and extent of burn and scald injuries, statistics on burn fatalities and nonfatal injuries from fire and burns, the mechanics of burn and scald injuries, and information on the different categories of burns and their effects are provided. A chart outlines children's developmental stages and the accompanying potential injury hazards at each stage. Next, the major causes of fire and burn injury and death are examined as follows: residential fires, smoke inhalation, smoking materials, heaters, hot surfaces, hot foods, electricity and sunburns. Fire safety codes and standards, installing and testing smoke detectors, fire extinguishers, testing hot water temperature, and emergency escape planning are also discussed. Fire and burn prevention activity worksheets; burn safety checklists for homes and child care centers; guidelines for burn first aid; and a list of things to buy to help make a safe environment for children are included. Organizations offering safety products and product and burn safety information are listed, and the fire and burn prevention guidelines of the American Public Health Association (APHA) and the American Academy of Pediatrics (AAP) are included. Contains 39 references. (AS)

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Injury Prevention for Young Children

From the National Safety Certification System

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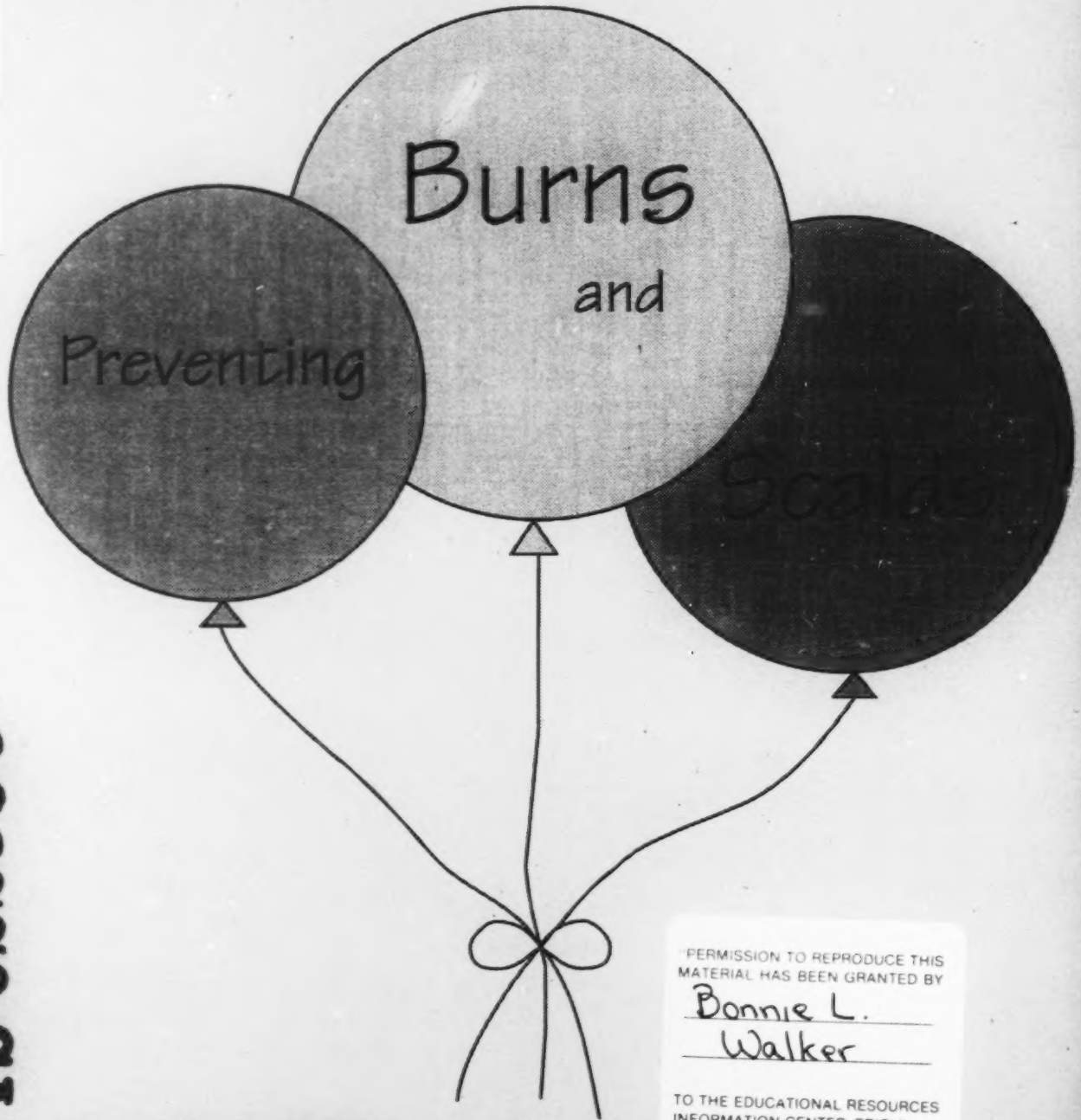

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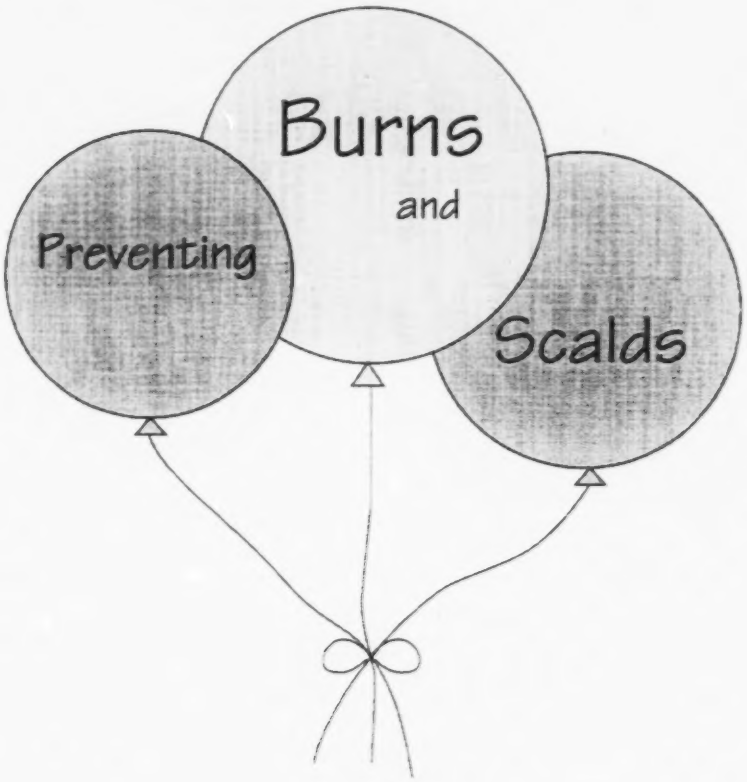
Injury Prevention for Young Children
Preventing Burns and Scalds

Top Ten List

1. Install and maintain smoke detectors.
2. Keep smoking materials out of sight and out of reach.
3. Lower the temperature on your hot water heater to 120°F.
4. Don't use a microwave to warm an infant's food or bottles.
5. Don't use baby walkers.
6. Don't drink hot coffee or tea when children are around.
7. Separate the cooking area from play areas.
8. Install barriers around heaters, stoves, and other hot surfaces.
9. Don't use electric curlers and curling irons around young children.
10. Don't use portable heaters.

Injury Prevention for Young Children

From the National Safety Certification System



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➤ Objectives

1. Identify the extent and significance of major injuries to young children.
2. Identify characteristics of burns and ways in which burns and scalds occur.
3. Explain how burns and scalds are related to developmental stages of infants, toddlers, and preschoolers.
4. Identify developmental issues, hazards, and prevention interventions related to residential fires.
5. Identify developmental issues, hazards, and prevention interventions related to smoke.
6. Identify developmental issues, hazards, and prevention interventions related to matches, lighters, and smoking materials.
7. Identify developmental issues, hazards, and prevention interventions related to heaters.
8. Identify developmental issues, hazards, and prevention interventions related to hot surfaces.
9. Identify developmental issues, hazards, and prevention interventions related to scalding tap water.
10. Identify developmental issues, hazards, and prevention interventions related to scalding liquids.
11. Identify developmental issues, hazards, and prevention interventions related to hot foods.
12. Identify developmental issues, hazards, and prevention interventions related to electricity.
13. Identify developmental issues, hazards, and prevention interventions related to sun exposure.
14. Identify APHA/AAP Guidelines related to burn and scald injury prevention.

➤ Introduction

Injuries are the leading cause of death for children in the United States between the ages of one and four. In fact, injuries are the cause of about 45% of all deaths in this age group. Many child care providers receive CPR and first aid training to help them react correctly after an injury occurs. The National Safety Certification System was developed to meet the need for a comprehensive national program aimed at reducing the number of injuries that happen each year to young children.

This module focuses on the prevention of fire and burn injuries and death, one of the leading threats to young children. Thousands of fire and burn injuries and deaths occur each year due to: residential fires and smoke inhalation, spilled hot liquids, electrical burns, chemical burns, hot surface contact burns, clothing fires, lightning, and sunburn. Causes of fire and burn injuries not covered in this module, either represent a relatively small risk or are covered in more detail in another module in the series.

This program promotes compliance with the APHA/AAP Guidelines for safety and health in child care facilities.

The Audience

Professional child care providers, parents, grandparents, foster care providers, and baby sitters can all benefit from this comprehensive injury prevention program. Anyone with an interest in providing a safe environment for young children or who works with caregivers, such as health care and regulatory staff, will also find this program beneficial.

Recommended Approach to Reducing Injuries

There are many ways to prevent needless nonfatal injuries and injury deaths. Four elements of injury prevention are key to educating people who care for our nation's young children.

- Recognizing the danger
- Changing the environment
- Increasing supervision
- Teaching children about safety

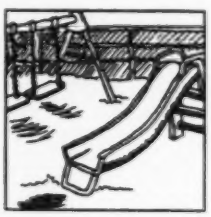
Subgroups of Young Children

Throughout this injury prevention program children are referred to as:

- Infants—From 0 to 1 year old
- Toddlers—1 and 2 years old
- Preschoolers—3 and 4 years old
- Young children—All children from 0 to 4 years old

About the Icons

Icons depicting various environments where each type of fire and burn injury often occur are provided on appropriate pages of the text. These icons will help readers to focus attention on specific areas of concern.

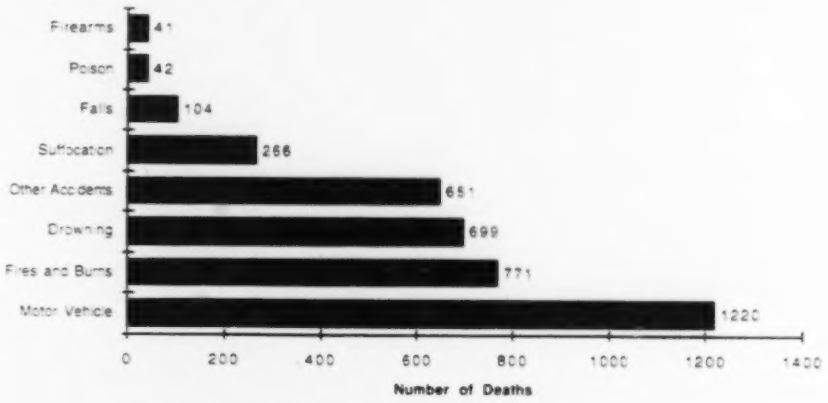


Other Materials

This book is part of a training program which includes an instructor manual, a videotape, and a test. The video that accompanies this module provides additional information and examples of injury prevention techniques. The test measures the amount of knowledge which has been acquired. Additional modules in this series will address: motor vehicle related accidents, drowning, poisoning, falls, child abuse and neglect, fire arms, choking and suffocation, and illness and disease.

Burn Fatalities in the United States

- Each year many young children die of fire and burn injuries.
- Young children have a much higher risk of dying in a fire than the general population.
- Fires and burns are one of the top causes of fatal injuries to young children.



Fires and burns are one of the leading causes of fatal and nonfatal injuries to young children.

Number of Deaths by Cause, Young Children: Ages 0-4, 1988.
Source: National Safety Council, Accident Facts, 1992.

Nonfatal Injuries from Fire and Burns

- Each year many thousands of children in the United States receive burn injuries. About half of the children are injured severely enough to require medical treatment in clinics and doctors' offices. Thousands more are admitted to hospitals for specialized treatment.
- Scalds from hot liquids are one of the leading causes of nonfatal burns.
- Falling onto or touching hot surfaces is a leading cause of contact burns in young children.
- Playing with matches and lighters is the most common cause of flame burns.
- Other causes of nonfatal injuries include electrical contact, sun exposure, and ingestion of hot foods or liquids.

Nonfatal burns can be caused by contact with a hot surface.

➤ The Mechanics of Burn and Scald Injuries

Categories of Burns

- First-degree burns involve outer layers of the skin and cause relatively minor damage. The skin looks red and dry, and can be very sore.
- Second-degree burns involve one or more inner layers of the skin. The skin looks moist and blistered. These burns may leave scars.
- Third-degree burns destroy all the layers of the skin. The skin may look gray and charred, but not always. It can be very difficult, even for doctors, to distinguish a third-degree burn from a second-degree burn. Healing takes a long time, and scars will remain.

Scalds and other burns often affect the hands which are cosmetically and functionally very important.

Effects of Burns

- Burns often affect the face and hands, areas that are cosmetically and functionally very important.
- Pain, scarring, disfigurement, multiple operations, plastic surgery, and social ostracism can result from a single burn incident. The long-term costs and emotional consequences of burns can devastate entire families. Children can suffer the effects of a burn long after the initial event.
- Electrical mouth burns are often disfiguring.
- In rare cases, drinking scalding liquids can cause the tissue in a young child's throat to swell and close the airway.

Children can suffer the effects of a burn long after the painful initial event.

Third-degree burns destroy all the layers of the skin.

First Aid for Burns, on page 20, provides information on how to respond to burn injuries.

Burn severity increases with the size and depth of the burn.

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➤ Child Developmental Aspects of Burn Injuries

The time between the birth of a child and a child's fifth birthday is filled with constant developmental changes. Physical, emotional, social, and cognitive abilities must be understood in order to prevent the serious threat of burn injuries during this period of time. While different injury hazards may appear or be more prevalent during some periods of time, most hazards are present throughout all the stages mentioned below.

Infants are at a greater risk for scald injuries from hot baths.

Infant **Ages 0 to 1 year** **Fastest Period of Growth and Development**

Characteristics	Injury Hazard
Born with involuntary reflexes and all senses. Feels pain.	From birth, infants are at risk for scalds from hot baths and burns from hot formula.
Begins rolling and reaching for objects.	Can roll into nearby hot surfaces. Can reach for hot items such as a hot cup of coffee or lit cigarette.
Begins studying objects by holding and tasting them.	Will put all items within reach into its mouth including electric cords.
Begins crawling and pulling up to standing position while holding on to objects.	At risk for burn injuries from touching hot surfaces and coming in contact with hot liquids. Baby walkers give infants added height and mobility increasing their risk for burns.
Begins to repeat patterns and imitate others.	May imitate behaviors which are unsafe or beyond limited capabilities.
Begins to understand that actions lead to a result.	Caregivers may overestimate the amount of understanding an infant has developed.
Unable to save themselves from danger. Must completely rely on others.	At risk for fire death. The quick build up of intense heat and smoke often prevents infants from being rescued.

Toddler **Ages 1 and 2 years** **Independence and Self Mastery**

Characteristics	Injury Hazard
Begins creeping up stairs and walking.	Increased reach and access to table tops increases risk for injury.
Begins climbing.	Ability to climb up chairs and onto tables increases risk of injury.
Can be aggressive, stubborn and prone to tantrums.	May touch hot objects and surfaces during a power struggle to show their independence.
Wants to do things alone without adult help.	Can not understand the danger involved in many actions.

Preschooler **Ages 3 and 4 years** **Curious and Energetic**

Characteristics	Injury Hazard
Very active. Enjoys running and jumping indoors and out.	Can easily knock over hot items like coffee and portable heaters.
May be allowed to play out of the direct eyesight of caregivers.	May not report an accident or hazardous situation to adult.
Enjoys exploration, adventure, and fantasy.	May create dangerous situations during play, such as experimentation with matches and lighters.
Begins playing socially with other children.	May follow along with another child who is doing something unsafe and imitate older children.
Enjoys helping with household tasks.	May undertake household tasks without being asked such a cooking food, making coffee, or taking a bath without assistance.

➤ Residential Fires

How prevalent are residential fires?

- Residential fires are a major cause of injury-related deaths for children.
- Smoke is the primary killer in these fires.

Why are young children at risk from residential fires?

- Young children cannot help themselves in a fire. They may not understand the hazard, and may not be able to escape.
- Infants are especially vulnerable because they may not be able to move themselves at all.
- Residential fires affect everyone. An adult who is overcome by smoke cannot help a child.
- Children's lungs are more susceptible to the toxins from smoke inhalation than an adult's.
- Children not trained in fire safety may not know what to do in an emergency. They may hide in a closet or under a bed where they think they are safe.

How do residential fires usually happen?

- The leading cause of residential fires that kill children is children playing with matches and lighters. For young children, four out of ten fatalities occurred during the daytime hours of 8:00 a.m. and 4:00 p.m. while children are unsupervised.
- Careless smoking by adults is a major cause of home fires. Fires are caused by improperly disposing of ashes, leaving smoking materials unattended, or falling asleep while smoking.
- Fires start when heating equipment is improperly installed or maintained.
- Fires start when outlets or extension cords are overloaded.
- Residential fires begin when unattended cooking fires get out of control.

Young children are incapable of helping themselves in a fire.

Smoke is usually the killer in fires.

Properly installed and maintained smoke detectors are the most important means of preventing deaths in residential fires.

Preventing Residential Fires, Injuries and Deaths

- Correctly install, test, and maintain smoke detectors.
- Do not smoke in bed.
- Correctly dispose of cigarette ashes, wet them before disposal into a metal container.
- Teach children that matches and lighters are tools, not toys, and keep them out of reach and out of sight.
- Teach children about fire safety. Practice an emergency plan, and stop, drop, and roll.
- Do not overload electrical outlets or extension cords.
- Make sure all heating equipment is inspected and maintained.
- Never leave stove top cooking unattended.
- Keep the stove area clear of clutter, including wrappers, towels, and pot holders. These are convenient fuel for a fire.

APHA/AAP GUIDELINES ***for child care facilities***
Smoke detectors shall be placed on each floor, no more than 40 feet apart, installed on or 6 to 12 inches below the ceiling. Smoke detectors shall be tested monthly, and the batteries replaced at least yearly.

➤ Smoke

Most fire deaths occur in homes without working smoke detectors.

Why is smoke dangerous?

- Smoke is a mixture of hot vapors, poisonous gases, and fuel particles that is produced when materials burn.
- Most children die in fires because they breathe too much smoke.
- Lack of oxygen causes disorientation and confusion, followed by unconsciousness.
- When insufficient quantities of oxygen are present in the bloodstream, heart failure and respiratory arrest can occur.
- Hot vapors can burn throat and lung tissue.
- Poisonous gases, such as hydrogen sulfide, affect muscular coordination. Inhaling these gases can lead to death.
- Inhaling smoke fills up a child's lungs with carbon monoxide which reduces oxygen flow to the brain and suffocates the victim.

Why are young children at risk from breathing smoke?

- The delicate condition of many young children's respiratory systems, especially those with respiratory problems, contributes to the risk of death from breathing smoke laden air.
- Young children fail to move to safety in a fire situation, increasing their exposure to smoke.
- Young children may live in homes that do not have working smoke detectors.

How does smoke travel?

- Smoke travels through a home or building much faster and easier than flames and heat. It will quickly travel up unprotected stairs, rising to the highest level possible.
- Smoke can travel through heating and air conditioning vents and other vertical openings such as laundry chutes.

In the home, a closed door will slow down the spread of fire and smoke.

Larger centers will have large, heavy fire doors. Do not prop these doors open.

Preventing Smoke Inhalation Injuries and Deaths

- Install, test, and maintain smoke detectors. Use detectors specially designed for children who have visual and hearing impairments when needed.
- Stay low under the smoke. In a smoke-filled room, the safest, breathable air is close to the floor.
- Evacuate your home or facility immediately in a fire. Do not waste time by fighting the fire, getting dressed, or gathering possessions.
- Keep doors closed to prevent the rapid spread of smoke in a fire.

➤ Matches, Lighters, and Smoking Materials

How prevalent are burns from matches, lighters, and smoking materials?

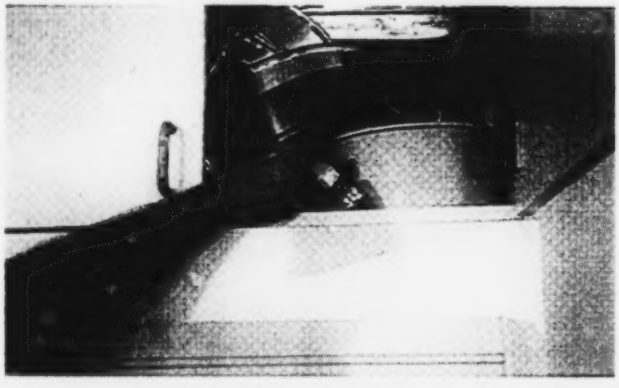
- The leading cause of fires that kill young children is children playing with matches and lighters.

Why are young children at risk for these burns?

- Infants are unable to help themselves in a fire, and may be overcome from smoke very quickly.
- Toddlers may not understand the consequences of a fire. A toddler who starts a fire may simply walk into another room without telling an adult.
- Toddlers and preschoolers like to imitate adult behavior, such as smoking.
- Toddlers and preschoolers may experiment with how matches and lighters work.
- Young children may not be able to escape from a fire. Even when a smoke detector is present and working, a child will not understand the signal unless an emergency plan was practiced regularly.

How do fires and burns from matches, lighters, and smoking materials happen?

- Most often a child starts a fire when there is no adult supervision. The adults are in another room, out of the house, or sleeping.
- Young children set their clothing on fire while playing with lighters and matches.
- An adult smoking while holding a child, or standing near a child, accidentally burns the child with a cigarette.
- A child picks up or steps on a lit cigarette left burning on the ground, or in an ashtray.



Keep cigarettes, matches, and lighters out of reach and out of sight of children.

Preventing Fires Caused by Smoking Materials

- Always keep cigarettes, matches, and lighters out of reach and out of sight. Make sure matches and lighters are not left in coat pockets or purses where a child can find them.
- Install and maintain fire safety devices such as smoke detectors and a residential sprinkler system in your home or child care facility.
- Practice a fire emergency evacuation plan.
- Teach children to stop, drop, cover their faces, and roll if their clothing catches on fire.
- Do not smoke while caring for children and never leave a cigarette unattended.
- Teach children that matches and lighters are tools for grown-ups, not toys.

APHA/AAP GUIDELINES *for child care facilities*

- Matches and lighters shall be inaccessible to children.
- The use of tobacco (in any form), alcohol, and illegal drugs shall be prohibited on the facility premises during the hours of operation.

The best way to keep young children from playing with matches and lighters is to keep them completely out of reach.

Children often set their clothes on fire while playing with matches and lighters.

Do not leave matches and lighters in coat pockets or purses where a child can find them.

7

➤ Heaters

The best way to prevent fires and burns caused by portable heaters is to not have them in homes or facilities where there are young children.

Toddlers have an unsteady gait when they walk and can fall onto heaters.

How prevalent are fires and burns from heaters?

- Portable heaters are responsible for many of the fires that kill young children.
- Placing combustibles too close to heaters is a major cause of all heating fires that kill young children.
- A leading cause of all burns to infants and toddlers are contact burns involving a hot surface such as a hot radiator or portable heater.

Why are young children at risk for injuries involving heaters?

- Toddlers have an unsteady gait and can easily fall onto heaters.
- A preschooler is steadier, but may trip or be pushed while playing, and fall onto a heater.
- Children touch heaters out of curiosity.

How do injuries involving heaters usually happen?

- People place combustibles, such as mattresses and bedding, close to heaters and they heat up and ignite.
- Children burn themselves when they fall onto or touch heaters, such as radiators, portable heaters, or wood stoves.
- Children start house fires when they stick paper and other objects into the openings of portable heaters, or tip them over.
- Adults use gasoline as fuel for kerosene heaters, which causes an explosion.
- Combustibles, such as clothing, ignite when placed on top of heaters.

Keep portable heaters three feet away from combustibles.

Preventing Fires and Burns Caused by Heaters

- Do not use portable heaters.
- If you do use a portable heater, or have a radiator or a woodstove, block it off from children using gates, or build a protective cover for it. Do not allow the cover or gate to touch the heater.
- Keep curtains, furniture, and other combustibles such as toys and paper, at least three feet away from the heater.
- Select a heater that is UL approved, has an automatic shut off in case of tipping, and an anti-scald shell to prevent contact burns.
- Do not leave portable heaters unattended.
- Use the type of fuel specifically intended for a heater.

APHA/AAP GUIDELINES *for child care facilities*
Portable, open-flame, and kerosene space heaters shall be prohibited. Portable gas stoves shall not be used for space heating.

➤ Hot Surfaces

How prevalent are hot surface burns?

- Contact with a hot surface is a leading cause of burns to young children.
- Young children suffer approximately 10,000 injuries per year related to hot electric curling irons and curlers.
- Common hot surfaces that burn young children include stoves, hot pipes for steam or water, light bulbs, radiators, heating appliances, pots, and pans.

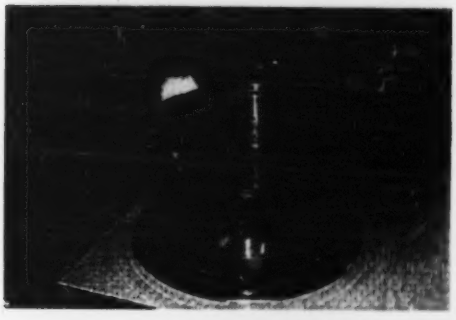
Why are young children at risk for hot surface burns?

- Children can suffer more serious burns because their skin is very thin and tender.
- Unlike older children who can react quickly by pulling away or by getting off a hot surface, very young children may remain in place when they are in contact with a hot surface.
- Infants and toddlers do not understand that it is dangerous to touch hot surfaces.

How do hot surface burns usually happen?

- Burns occur when a running child trips and falls on a hot surface such as a radiator, portable heater, or stove.
- Many children are burned when they touch hot surfaces out of curiosity.
- Children suffer severe burns from sun-heated surfaces such as hot pavement, metal decks, stairs, and sliding boards on playground equipment.
- Children get burned when they imitate adult behavior; using a curling iron, a clothes iron, or removing something from a conventional, toaster, or microwave oven.
- Children get burned when they pull an appliance onto themselves, or bump a table causing a hot appliance to fall on them.

Young children suffer approximately 10,000 injuries per year related to curling irons and curlers.



The best way to prevent hot surface burns is to install physical guards around appliances with hot surfaces.

Preventing Burns from Hot Surfaces

- Install a stove guard in the kitchen to protect against children touching hot burners.
- Install a door or gate to prevent children from entering the kitchen during hot food preparation.
- Keep lamp shades on lamps to protect against children touching bare light bulbs.
- Keep all heat producing appliances, including microwave ovens, out of reach of children. Keep the cords out of reach so children cannot pull them off of the counter.
- Do not leave hot appliances unattended.
- Check for hot surfaces on playground equipment before allowing children to play on it.

Teach children to distinguish between dangerous hot things and things which are safe to touch.

APHA/AAP GUIDELINES ***for child care facilities***

- Microwave ovens shall be so located as to be inaccessible to, and unable to be used by, children.
- Children younger than school age shall be restricted from hot food preparation areas during meal preparation.

➤ Scalding Tap Water

Setting the temperature on your hot water heater to 120°F is the best way to prevent injuries and death from scalding.

A child exposed to 140°F water for three seconds can receive a third-degree burn.

How prevalent are burns from tap water?

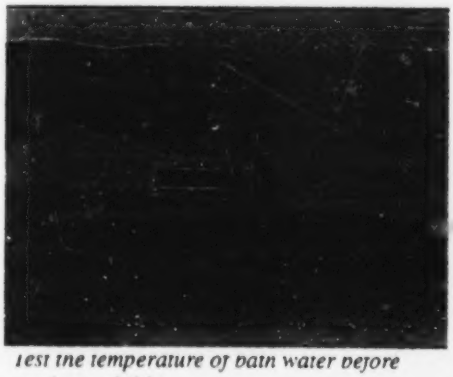
- In a single year, 5,000 U.S. children were scalded by hot tap water, most often in the bathroom.
- Nearly 90% of the deaths due to scalding tap water occur in bathtubs.
- In a study in which 196 tap water burns were analyzed, 98 of the victims were young children. The greatest number of scalds involved infants.

Why are young children at risk for tap water burns?

- When hot water flows from a faucet, young children cannot react quickly enough to take their hands out of the water. An infant or toddler cannot get out of a bath without help and may not be able to clearly communicate that the water is too hot.
- Children have thinner, more delicate skin than adults so they can be severely burned in a short time.
- Bathtub scalds are severe because they cover a large portion of a small child's body.

How do tap water burns usually happen?

- Children are injured when they are left unattended in the bath.
- Scalds occur in the bath when another child turns the hot water on.
- Children unsupervised in the bath turn the hot water on themselves.
- Many scalds occur when an adult places the child in hot water, or turns the hot water on while the child is in the bath.
- Some injuries occur when adults fill a tub with hot water for themselves and leave it unattended. A young child then gets into the tub.



Test the temperature of bath water before putting a child in.

If your water temperature is over 120°F, change the temperature at the hot water heater.

Preventing Scalding Tap Water Injuries

- Set the temperature on your hot water heater to 120°F.
- Never leave children unsupervised in the bathroom or kitchen. Do not allow children to turn the faucets on. Use faucet knob covers.
- Stir the water well with your hand to mix the hot and cold water before testing the temperature of a bath.
- Use a nonbreakable thermometer to measure the temperature of the water before you put a child in bath water.

APHA/AAP GUIDELINES ***for child care facilities***

Facilities shall have water heating facilities that are properly connected to the water supply system. These facilities shall be capable of heating water to at least 120°F and shall deliver an adequate amount of hot water at every required fixture. Where a dishwasher is utilized, means shall be provided to heat water supplied to such equipment to at least 140°F.

➤ Scalding Liquids

How prevalent are burns from scalding liquids?

- Scald burns from hot liquids are the most frequent cause of nonfatal burn injures in young children, and are the most common type of burn in the home.
- The majority of scald injuries occur in the kitchen from hot liquids left unattended.

Why are young children at risk for scald burns?

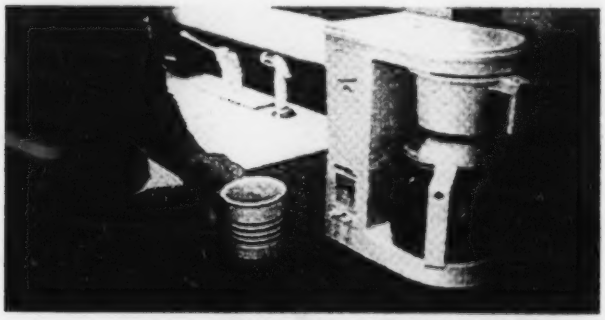
- Young children cannot quickly move out of the path of a scalding liquid, which causes them to receive severe injuries.
- Burn severity is a combination of burn area size and burn depth. A small amount of scalding liquid will cover a large area on a child.
- Young children receive deeper burns from hot liquids because they have thinner skin than adults.
- Infants reach for everything within their grasp by about six months of age.

Spilled hot liquids are the most frequent cause of nonfatal burn injuries in young children.

How do burns from scalding liquids usually happen?

- Hot liquid scalds occur when children tip a cup of hot coffee or tea on themselves, or when an adult spills a hot liquid on a child.
- Infants in walkers reach for objects on a table, or tip pots off a stove.
- Toddlers and preschoolers reach up on a table, or stove, and upset a cup, bowl, or pan of hot liquid.
- Young children pull on table cloths and spill hot liquids on themselves.
- Adults who are tired, stressed, distracted or hurried, do not react quickly enough to prevent a child from being scalded.

Hot liquid scalds occur when children tip an adult's cup of coffee or tea on themselves.



Confine hot liquids to adult or staff areas.

Preventing Scald and Burn Injuries

- Install a door or gate to prevent young children from entering the kitchen during hot food preparation.
- Never drink hot liquids in areas where children are present.
- Never leave containers with hot liquids unattended when children are present. Never hold a child while you are holding a hot liquid.
- Turn pot handles in, away from the edge of the stove. Put hot liquids and pans on the back burners of the stove, out of children's reach.
- Remove table cloths from tables.
- Do not use baby walkers.
- Put hot containers of food on the center of the table and the back of the counter.
- Make safety a habit so that scalds do not occur when you are tired, distracted, or hurried.

APHA/AAP GUIDELINES ***for child care facilities***

Adults shall not consume hot liquids in child care areas. Coffee and other hot liquids and hot foods shall be placed out of reach of infants, toddlers, and preschoolers. Hot liquids shall not be placed at the edge of a counter or table, or on a tablecloth that could be yanked down. Pot handles shall be positioned toward the back of the stove.

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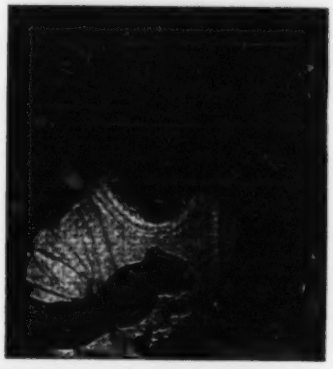
➤ Hot Foods

Infants cannot react quickly to spit out hot food.

A slow cooker can be used to meet the APHA/AAP guidelines for bottle warming.

How prevalent are burns from hot foods?

- The ingestion of hot food causes mouth burns. Mouth burns are very serious, the roof of the mouth can blister which makes eating very painful or impossible.
- Scalds of the esophagus and airway are also very dangerous. Swelling of the throat tissue can cut off a child's air intake and lead to suffocation.
- Hot food can also scald the skin of a young child if spilled.
- The widespread use of microwave ovens to heat infant food presents a serious burn hazard.

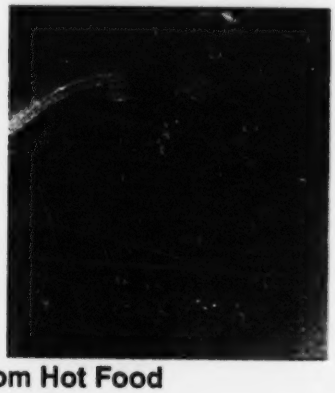


Why are young children at risk for burns from hot foods?

- A young child's mouth and throat are more tender than older children and adults.
- A young child is not able to spit out hot food as quickly as an older child or adult.
- An infant is especially at risk for this type of injury, they cannot react quickly to the burn, and cannot communicate their injury as well as a toddler or preschooler.
- Young children find waiting for food to cool difficult.

How do burns from hot foods happen?

- A bottle heated in the microwave oven may feel cool on the outside, but be dangerously hot on the inside due to uneven heating.
- Food that is warmed in a microwave oven will continue to cook after it is removed from the microwave until the molecules stop reacting to the microwave process.
- Mouth burns occur when food is not allowed to sit and cool long enough, or when hot food is not tested by an adult.



Preventing Burns from Hot Food

- Do not use a microwave oven to heat an infant's bottle or food.
- Serve young children cold or room temperature foods when possible.
- Heat bottles in slow cooker or other appliances which allow you to set a maximum temperature.
- Stir food well and test it before feeding an infant or giving it to a young child.
- Warm bottles under the faucet.

If you do use a microwave oven:

- Remove the food from its original container, and warm it in a shallow dish.
- Use a microwave thermometer to ensure that the food or drink does not exceed 90° to 100°F.
- Always allow food to sit for a few minutes after it is heated in a microwave oven.

APHA/AAP GUIDELINES *for child care facilities*

- Microwave ovens shall be so located as to be inaccessible to, and unable to be used by, children.
- Heating units for warming bottles and food shall be accessible to adults but not to children. Microwave ovens shall not be used for warming infant bottles or infant food.
- If breast milk or bottle formula is to be warmed, bottles shall be placed in a pan of hot (not boiling) water for 5 minutes, after which the bottle shall be shaken well and the milk temperature tested before feeding. Bottles of formula or breast milk shall never be warmed in a microwave oven.

➤ Electrical Burns

How prevalent are burns from electricity?

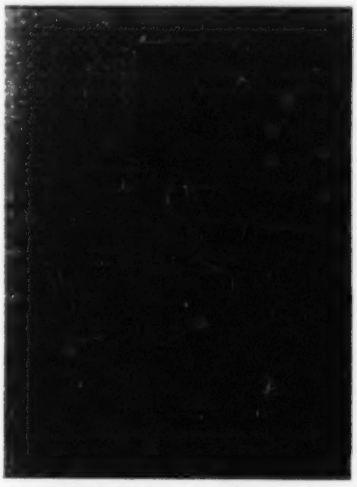
- Electrical burns are one of the four most common kinds of burns.
- The most common type of electrical injury is the result of direct contact with an electrical source.
- Domestic house current is usually 110 to 220 volts. A 220 volt burn can cause deep tissue damage that may not be detected during an initial examination. Burns from electrical current often appear superficial, but may be very deep.
- Infants and young children are likely to be injured by low-voltage current, like that found in extension cords and small appliances.

Why are young children at risk for electrical burns?

- Infants and toddlers are likely to chew on electrical cords and live extension wires.
- Toddlers and preschoolers like to imitate adults. They try to use the same appliances that older people use, but they are not old enough to use them correctly and safely.
- Toddlers and preschoolers do not understand the hazards of using an electrical appliance, such as a curling iron or blow dryer, near water, or with wet hands.

How do electrical burns usually happen?

- Infants and toddlers get burned when they chew on an electrical cord, or when they mouth, or suck, the female end of a live extension cord. The facial and oral burns from these activities are painful, disfiguring, and often require extensive orthodontic and reconstructive surgery.
- Young children receive electrical burns from handling electrical appliances with wet hands or while standing in a wet area.
- Young children are burned when they misuse electrical toys while they are unsupervised, or when a toy is damaged.
- Children are burned when they put conductive objects, such as keys, into electrical outlets.



Install safety plugs in all unused outlets.

Preventing Electrical Burns

- Cover electrical outlets that are accessible to children with child resistant covers. Install safety plugs in all unused outlets.
- Keep electrical cords out of children's reach.
- Never leave a live extension cord unattended. Put away unused extension cords.
- Do not allow children to have electrical toys.
- Use extension cords only on a temporary basis. Make modifications so they are not needed.
- Install ground fault circuit interrupter (GFCI) outlets in kitchens, bathrooms, and other areas where appliances are used near water.
- Do not allow yourself to be a victim of an electrical burn, never pull a child away from a power source with your bare hands or any object.

APHA/AAP GUIDELINES *for child care facilities*
Electrical outlets accessible to children shall be covered with child resistant covers. Safety plugs shall be installed in all unused outlets.

Electrical hazards become a problem when infants begin to crawl.

Because infants put everything in their mouths, they are likely to chew or suck the end of a live extension cord.

Even doctors have difficulty diagnosing the severity of electrical burns.

➤ Sunburn

Exposure to the sun is dangerous to infants and young children because their surface to volume ratio is greater than an adult's.

Apply sunscreen, regardless of the temperature or season, whenever children over six months will be exposed to the sun.

How prevalent is sunburn?

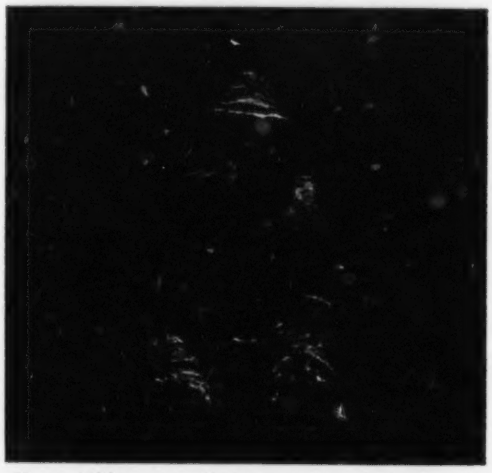
- Sunburn is the most common type of burn.
- Bright midday sun can burn a child's skin in only two minutes.
- Sunburn can cause second degree burns which can permanently damage the skin and increase the likelihood of developing skin cancer.

Why are children at risk for sunburn?

- Infants burn easily because their skin has not been toughened by long exposure to the sun, air and friction.
- Infants are especially vulnerable to anything that affects their skin, because the ratio of their skin surface area to body volume is greater than an adult's.
- You cannot tell if a child is being burned, because sunburn does not show or hurt until after the damage is done.
- Sensitive areas of the body that are not usually exposed are burned very easily.
- Children are often outside playing during peak sun periods. The average child receives three times more annual ultraviolet-B radiation, a harmful product of the sun, than the average adult.

How does sunburn usually happen?

- Sunburn occurs when children play outside without sunscreen.
- Sunburn occurs even when it is cool outside. A slight breeze keeps the skin cool so the damages of the hot sun are not felt.
- The sun's rays penetrate thin clothing and cause a burn unless the child is wearing sunscreen underneath.
- Sunburn occurs after sunscreen comes off. The water in a pool or ocean can wash it off. Sweat also causes sunscreen to come off.



Have children wear light protective clothing and hats to prevent exposure to the sun and wind.

Preventing Sunburn

- Always put sunscreen on children over six months of age who will be in the sun, regardless of the temperature or season.
- Do not apply sunscreen to children under six months of age without a physician's consent. Keep infants out of the sun, protected by clothing, or completely shaded.
- Apply sunscreen to children at least half an hour before they play outside (or according to the manufacturer's instructions). It takes time for the active ingredients of the lotion to sink into the skin.
- Limit the time children spend in the sun between 10:00 a.m. and 4:00 p.m., the hours of strongest exposure to ultraviolet-B radiation.
- Have children wear light protective clothing and hats to prevent exposure to the sun and wind.
- Waterproof sunscreen should be reapplied after swimming and every few hours to assure complete protection.

➤ Applicable Codes and Standards

Applicable Codes

- Codes and standards are in place throughout the country to ensure that buildings meet minimum standards of safety and structural quality. Some of the fire safety requirements contained in these regulations apply to private homes. Additional requirements are placed on facilities that provide care for young children outside the home.
- The authority having jurisdiction (AHJ) in your area will be able to tell you which fire safety and building codes you must adhere to. The AHJ may be the fire marshal, the building department, the health department, or another government agency.

The Life Safety Code

- NFPA 101, the Life Safety Code (LSC), is published by the National Fire Protection Association. Many states and local governments have adopted the Code into law. The Life Safety Code contains fire safety requirements for all types of structures including both private homes and places that provide child care. Specific requirements vary based on the age of the children, the size of facility, and the number of children being cared for.

Building Codes

- Building codes provide direction for building construction including fire protection and life safety features and materials of construction. They also contain references to other applicable codes and standards including a mechanical code and a plumbing code.

Fire Prevention Codes

- Fire prevention codes contain requirements for maintaining fire protection and life safety features and for the prevention of hazardous conditions.

Requirements for homes and child care centers

- Smoke detectors
- Emergency evacuation plans
- Fire extinguishers

Additional requirements often applicable to child care centers

- Fire doors
- Fire alarm systems
- Sprinkler systems
- Smoke proof enclosures
- Fire resistive construction
- Automatic fire department notification

The Life Safety, Building, and Fire Prevention Codes were created to reduce deaths and injuries.

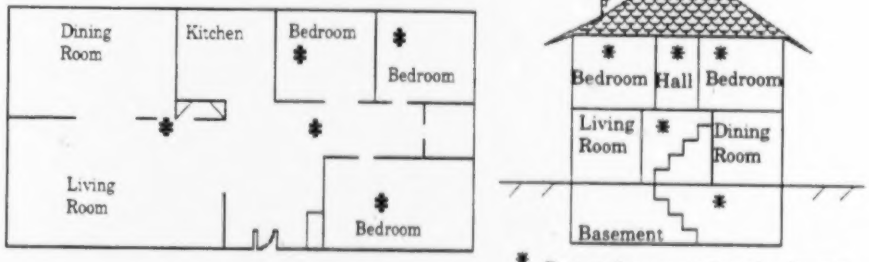
Ask your AHJ what fire safety and building codes you must follow.

➤ Installing and Testing Smoke Detectors

Check the manufacturer's directions for information about testing smoke detectors.

Requirements

- All child care facilities and private homes must have smoke detectors. The specific requirements for the number and type of detectors needed vary for different types of facilities.
- Special detectors with flashing lights, loud horns, and vibrating devices are available to provide early warning to children with hearing and visual impairments.
- In private homes or family child care facilities, install smoke detectors on every story of the house. Place them at the top of stairways, and in each separate sleeping area.

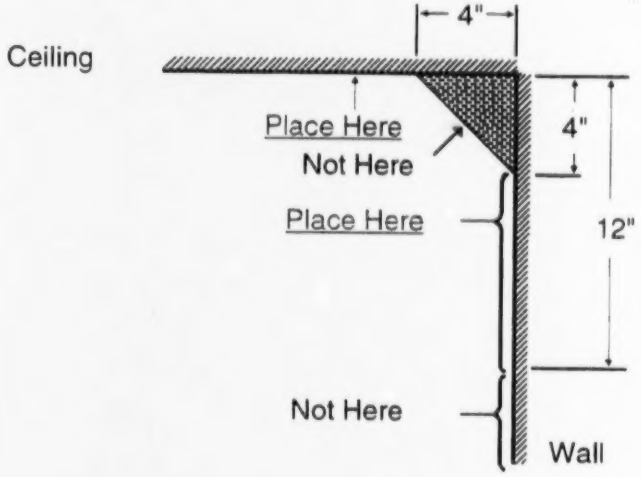


* Proper placement of smoke detectors.

The Life Safety Code requires that battery operated smoke detectors be tested weekly, and their batteries be replaced twice each year.

Installing and Testing Detectors

- Follow the manufacturer's instructions when you install smoke detectors. Most detectors should be placed:
  - On the ceiling at least 4 inches away from the wall, or
  - On the wall, 4 inches to 12 inches from the ceiling.
- New homes may be equipped with electrical, or hard-wired, smoke detectors. Hard-wired smoke detectors should be tested once a month. Battery operated detectors should be tested once a week. Batteries should be changed twice a year.
- Family child care facilities and child care centers should keep accurate records of all smoke detector testing and maintenance.



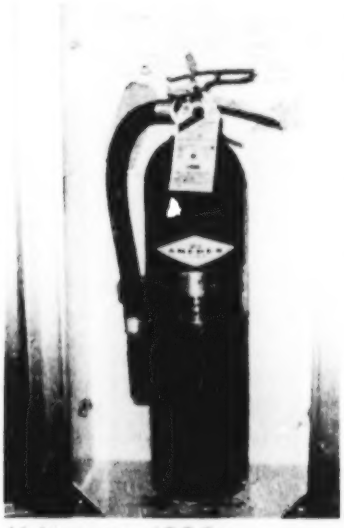
➤ Fire Extinguishers

What is a fire extinguisher?

- A fire extinguisher is a portable device containing water or chemicals that can be sprayed on a fire to put it out.

What are the different kinds of fire extinguishers?

- **Type A**: Use for ordinary combustibles (wood, cloth, paper, rubber, plastics).
- **Type B**: Use for flammable liquids (gasoline, oil, grease, tar, oil-based paint, lacquer, and flammable gas).
- **Type C**: Use for electrical equipment (wiring, fuse boxes, circuit breakers, machinery, appliances).
- **Type D**: Use for combustible metals (Not typically found in child care facilities).



Multi-use type ABC fire extinguishers are used in child care facilities.

When should you use a fire extinguisher?

Only when all of the following are true:

- All the children have left the building and are with an adult, and the fire department has been called.
- You are trained to use the fire extinguisher correctly.
- Your extinguisher is the correct type for the fire you are fighting.
- The fire is very small and is not near other combustible materials.
- You can fight the fire with your back to the escape route.

What maintenance is needed?

- Extinguishers should be inspected by a professional every twelve months and when the extinguisher looks dented or damaged.
- Check your extinguisher monthly to make sure the pressure gauge reads full and there are no signs of tampering or physical damage.
- Replace or refill any used fire extinguisher immediately after it has been discharged.

Fire extinguishers can only be used on very small fires.

How do you use a fire extinguisher?

You need hands on training to learn to use a fire extinguisher. Only use an extinguisher if you receive professional training on a regular basis.

1. Pull the pin (many extinguishers require releasing a lock latch or pressing a puncture lever).
2. Aim low, pointing the extinguisher nozzle at the base of the fire.
3. Squeeze the handle to release the extinguishing agent.
4. Sweep the extinguisher from side to side at the base of the fire.

APHA/AAP GUIDELINES *for child care facilities*

Fire extinguisher(s) shall be installed and maintained. The fire extinguisher shall be of the A-B-C type. Size and number of fire extinguishers shall be determined after a survey by the fire marshal or by an insurance company fire loss prevention representative. Instructions for the use of the fire extinguisher shall be posted on or near the fire extinguisher.

➤ Testing Hot Water Temperature

Do not use a fever thermometer to test the temperature of hot water—it will break.

Materials needed

- Meat or candy thermometer
- Screwdriver

Testing the temperature

- At your kitchen or bathroom faucet, turn the hot water on.
- Allow the water to run for three minutes to be sure the water reaches the maximum temperature.
- Put the thermometer under the hot water until the gauge stops rising.
- If the temperature is over 120°F, adjust your hot water heater.

Use a meat or candy thermometer to test water temperature.

Adjusting the temperature

- If necessary, remove the hot water heater cover plate with the screwdriver.
- Depending on your hot water heater either turn back the setting to LOW or to 120°F.
- Replace the cover.
- Wait three hours and retest the water temperature at your faucet.
- Repeat the testing and adjusting procedures until your water has a maximum temperature of 120°F.

Setting the hot water temperature to 120°F is a simple and effective way to reduce hot tap water scalds.

The best way to prevent scalding accidents is to lower the temperature of the hot water heater.

APHA/AAP GUIDELINES ***for child care facilities***

Food preparation, handwashing, and bathing facilities shall be provided with hot and cold or temperate running water. Where such water will be in direct contact with children, the temperatures shall not exceed 120°F.

➤ Emergency Escape Planning

What makes an emergency escape plan effective?
Emergency escape planning is an important activity to ensure the safety of young children in case of fire. But planning may be ineffective if important human factors are overlooked. Even a good plan is doomed to fail if caregivers do not understand the deadly nature of fire and the importance of following and practicing the plan.

Remember these facts when developing your emergency escape plan:

- Fire growth accelerates with time leaving little time for escape.
- Smoke travels faster than fire and is usually the killer.
- Young children have delicate respiratory systems so smoke is deadly to them.
- Fire emergencies are always unexpected events.
- Recognizing the emergency nature of the situation is not always easy.
- The keys to surviving a fire are education and planning.

Develop a complete emergency escape plan by following these four steps.

1. **Assess child and caregiver special needs.**

   Your plan must accommodate young children who are unable to evacuate on their own. However, caregivers may have limited ability to carry children to safety. Develop procedures that will give everyone time to escape safely if an emergency occurs. Reevaluate children and caregiver needs and abilities regularly.

2. **Identify escape routes.**

   Plan two ways out of every room. Post diagrams of the escape routes and make sure everyone knows both routes. If a window is used as a second way out, make sure it opens and closes easily. Practice signaling for help.

3. **Hold regular escape drills.**

   Include all three types of fire drills: practice, announced, and surprise. Teach fire safety strategies during practice drills such as crawling under smoke, stop, drop and roll, and checking a door for heat. Set a meeting place for everyone to go after they evacuate.

4. **Evaluate your plan and make changes as needed.**

   Record the results of all drills. If everyone is not at the meeting place within three minutes from the start of the drill, make necessary changes to the emergency procedures.

Practice your fire emergency plan and make sure everyone is out of the building within three minutes.

Reevaluate your plan as new children enter your facility and as the children's needs and abilities develop.

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➤ First Aid for Burns

Post emergency numbers by all the phones in your home or facility.

Do not apply ointment, cream, oil, spray, butter, or any other household remedy to burns. These substances can interfere with proper healing.

First aid and CPR courses for child care workers are offered by the American Red Cross and many local fire departments.

This page serves as a guideline for burn first aid. It does not replace the need for current first aid certification.

What to do:

The first thing to do in all burn situations is survey the area. Look to see if the area is safe, how the burn happened, if anyone else was injured. Second, find out if the child is conscious. If the child does not respond, shout for help and check the child's ABCs.

- *Airway*—Open the airway by tilting the child's head back.
- *Breathing*—Look to see if the child is breathing. Put your cheek close to the child's mouth. Feel for breath on your cheek. Listen for sounds of breathing.
- *Circulation*—Check for a pulse, and check for severe bleeding.

Dial 911 or your local emergency medical services number. Survey the child's body for specific injuries.

Remember:

- Always cool the burn with water to stop the burning. Do not apply ice to a burn.
- Do not apply ointment, cream, oil, spray, butter, or any other household remedy to burns. These substances can interfere with proper healing.
- Burns on the face, hands, feet, and genitals need medical attention immediately.
- The deeper a burn is, and the bigger its area, the greater the severity.
- Do not disturb blisters or dead skin. This may promote infection.
- Do not allow the burn to become contaminated. Avoid breathing or coughing on the burn.

Heat Burns (caused by fire, contact with a hot surface, scalding liquids, or hot tap water)

- Cool the burn with cool gently running water, or cover it with a towel soaked in cool water. Continue cooling the burn until the pain subsides.
- When the burn is cool, remove clothing from the area. Do not remove clothing that is stuck to the skin.
- Cover the burned area with a loose sterile dressing if possible. Do not tightly bandage it in place.
- Phone emergency medical services or get medical help for burns on the face, hands, feet, or genitals; for burns that have blistered; for burns on more than one part of the body; or if the child is having difficulty breathing.

Electrical Burns

- If the child is still touching the power source, turn off the electricity before you touch the child. Turn off the power at the circuit breaker. Turning off a light switch to turn off an outlet may not be sufficient. NEVER pull a child away from a power source with your bare hands or with any object.
- Check the child's ABCs. Electricity can cause a child to stop breathing or the heart to stop beating.
- Call emergency medical services or get medical help immediately. All electrical burns must be seen by a doctor.
- If the child is breathing, check the rest of his body. Look for more than one burn, electrical injuries can involve an entrance and exit wound.
- Apply clean, loose, nonstick bandages.

Chemical Burns (caused by cleaning, workshop, or gardening products)

- Call emergency medical services.
- If a chemical is swallowed, call the poison control center. Do not induce vomiting.
- Wash the chemical from the burned area with plenty of cool, running water until medical help arrives.
- Remove any clothing that has the chemical on it, if possible.
- If an eye is burned by the chemical, flush it with water until medical help arrives.

➤ Things To Buy

What to Buy

There are many devices available to help make your home or facility a safer place for children. Many of these devices can be purchased at discount stores, baby equipment stores, or larger toy stores. Page 26 lists specific places you can look for safety equipment.

Understand a product's function and safety value before you make a purchase. Be sure that a safety device does not cause a different hazard, such as choking, lacerations, or abrasions.

Choose devices that you will be comfortable using.

Anti-scald devices

- These devices protect against hot tap water scalds.
- Some anti-scald devices must be installed by a plumber.
- Some anti-scald devices can be easily installed on a faucet.

Bath thermometers (see page 10)

- An unbreakable bath thermometer will alert you to dangerous bath temperatures.
- The device floats in the bath, or is sometimes on a bath mat.

Cabinet locks

- Cabinet locks and latches provide a means of protecting children from unsafe appliances and products.
  There are many types of latches. Choose the one that is best for you.
- The locks can be used anywhere, the bathroom, kitchen, workshop, or play room.

Child proof outlet covers

- Child proof outlet covers replace standard outlet covers. A small sliding panel covers the outlet opening when a plug is removed leaving no access to the opening.
- They are easy to install and have no removable parts.

Cord shorteners

- Cord shorteners are devices which hold or contain electrical cords.

Door knob covers

- These devices protect against children opening doors to unsafe areas.

Faucet knob covers

- Faucet knob covers prevent young children from turning the hot water on while they are in the bath.
- The knob covers are easy to install and use.

Fire extinguishers

- These devices contain water or chemicals that can be sprayed on a fire to put it out.

Gates

- Gates provide a barrier to stairs, kitchens, and unsafe areas.
- Choose a gate with a straight top edge and a rigid mesh screen. Be sure there are no sharp edges on the gate.
- Accordion style gates pose a strangulation and entrapment hazard and can be climbed by small children. They should not be used.

Shock stops (see page 13)

- These devices should be plugged into all unused outlets.
- Choose a shock stop that attaches to the outlet so it does not come loose and present a choking hazard.

Smoke and heat detectors

- These devices provide early warning in case of fire.
- Hard-wired detectors with battery backup are the most reliable.
- Special devices are available to provide early warning to people with disabilities.

Stove guard (see page 9)

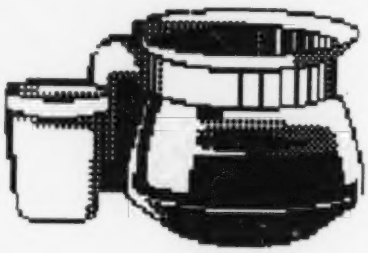
- A stove guard attaches to the front of the stove, to provide a barrier between cooking surfaces and young children.

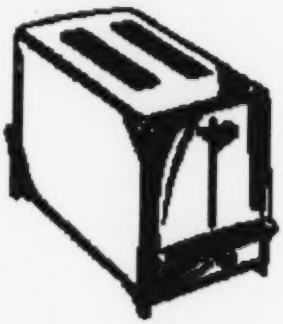
Stove knob covers

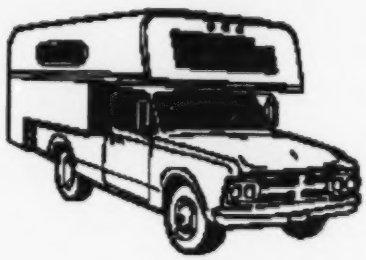
- These devices provide protection against children and adults accidentally turning stoves on.

➤ What is Hot?

Directions: Have toddlers point at the things on this page that are hot. Ask preschool age children to draw a circle around the hot things.





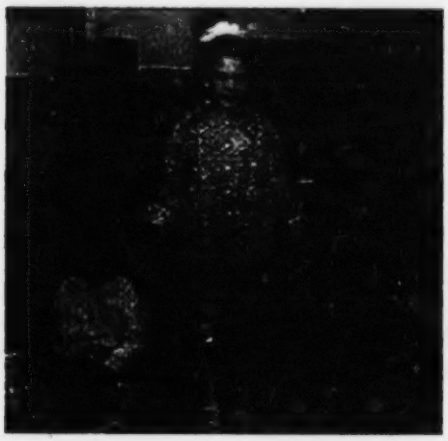


22

➤ Stop, Drop, and Roll

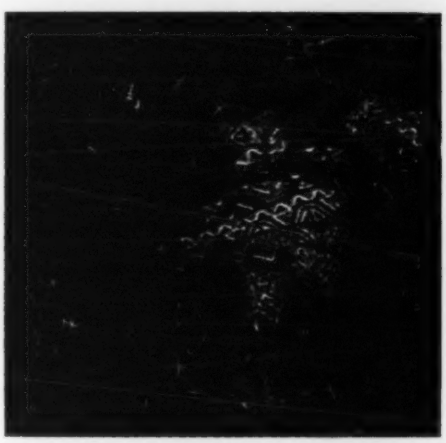
Directions: Have young children practice this activity as part of an emergency plan.

If your clothes catch on fire:



Stop!

Stop where you are. Do not run.

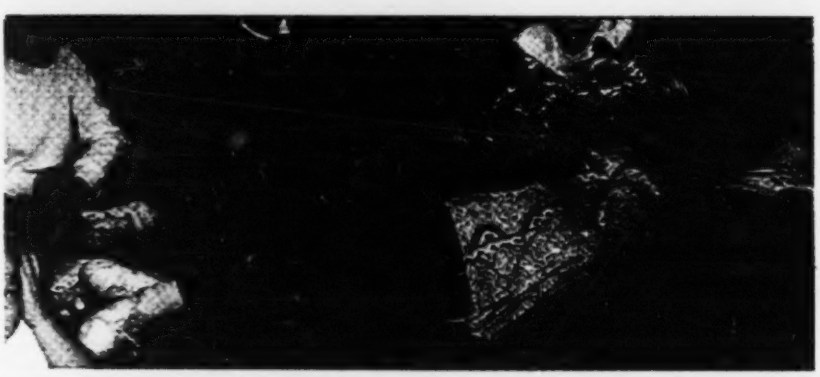


Drop!

Drop to the ground, and cover your face with your hands.

Roll!

Roll around until the fire goes out.



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➤ Burn Safety Checklist: Homes & Family Child Care

Directions: Inspect each room of your home or facility.
Check the safety features that you have installed.
Highlight any changes that need to be made.

Kitchen

- ❑ The stove is equipped with a stove guard.
- ❑ All outlets are equipped with shock stops or child proof outlet covers.
- ❑ Electrical outlets near the sink are equipped with ground fault circuit interrupters (GFCIs).
- ❑ A gate or door is installed to prevent children from entering during hot food preparation.
- ❑ The maximum hot water temperature at the sink is 120°F.
- ❑ There is a working, pressurized fire extinguisher with instructions.
- ❑ All heat producing appliances are in a locked cabinet when they are not in use.
- ❑ Pans on the stove have their handles turned toward the back.
- ❑ Electrical cords are out of reach of children.
- ❑ The counter near the stove is clear of towels, pot holders, and trash.

Dining Room

- ❑ All outlets are equipped with shock stops or child proof outlet covers.
- ❑ The table does not have a tablecloth on it.
- ❑ Electrical cords are out of reach of children.
- ❑ There are no permanent use extension cords in the room.
- ❑ There are no matches or cigarette lighters in the room.

Bathroom

- ❑ The maximum hot water temperature at the tub and sink is 120°F.
- ❑ All outlets are equipped with shock stops or child proof outlet covers.
- ❑ Outlets near the tub and sink are equipped with ground fault circuit interrupters (GFCIs).
- ❑ All electrical appliances such as radios, curling irons, and hair dryers are in proper working order and are out of children's reach or in a locked cabinet.

Utility Room

- ❑ The hot water heater is set at 120°F, or is on a low setting to ensure that the water temperature does not exceed 120°F.

Living Room

- ❑ All outlets are equipped with shock stops or child proof outlet covers.
- ❑ Radiators or wood stoves are protected so children cannot touch or fall onto them.
- ❑ Portable heaters are safely barricaded or covered to prevent injury to children.
- ❑ Portable heaters are three feet away from furniture, curtains and other flammable materials.
- ❑ The fireplace is covered by a sturdy screen.
- ❑ The fireplace hearth is clear of wood, paper, and other combustibles.
- ❑ There are no matches or cigarette lighters in the room.
- ❑ Electrical cords are out of reach of children.
- ❑ There are no permanent use extension cords in the room.
- ❑ Temporary extension cords are not run under rugs or furniture.
- ❑ Temporary extension cords are located where they will not be stepped on.
- ❑ Temporary extension cords are out of reach of children.
- ❑ Temporary extension cords are not overloaded.

Play Room

- ❑ All outlets are equipped with shock stops or child proof outlet covers.
- ❑ Permanent heaters, wood stoves, and portable heaters are protected so children cannot touch or fall onto them.
- ❑ Portable heaters are three feet away from furniture, curtains and other flammable materials.
- ❑ There are no matches or cigarette lighters in the room.
- ❑ Electrical cords are out of reach of children.

General

- ❑ Smoke detectors are correctly installed and are in working order.

Set a date to re-do the survey each year. Choose a day that is easy to remember, such as the day you change your clocks and replace your smoke detector battery.

➤ Burn Safety Checklist: Child Care Centers

Directions: Inspect each room of your facility.
Check the safety features that you have installed.
Highlight any changes that need to be made.

Kitchen

- ❑ The door to the kitchen is locked or is equipped with a gate to prevent child access.
- ❑ The stove is equipped with a stove guard.
- ❑ Electrical outlets near the sink are equipped with ground fault circuit interrupters (GFCIs).
- ❑ All outlets are equipped with shock stops or child proof outlet covers.
- ❑ There is a working, pressurized fire extinguisher with instructions.
- ❑ Pans on the stove have their handles turned toward the back.
- ❑ The maximum hot water temperature at the sink is 120°F.
- ❑ Electrical cords are out of reach of children.
- ❑ All heat producing appliances not in use are in a child proof cabinet.
- ❑ The counter near the stove is clear of towels, pot holders, and trash.
- ❑ Microwave ovens are out of reach of children.
- ❑ Appliances used to heat bottles, such as slow cookers, are out of reach of children.

Bathroom

- ❑ The maximum hot water temperature at the sink is 120°F.
- ❑ Electrical outlets near the sink are equipped with ground fault circuit interrupters (GFCIs).
- ❑ All outlets are equipped with shock stops or child proof outlet covers.

Playroom

- ❑ All outlets are equipped with shock stops or child proof outlet covers.
- ❑ There are no matches or cigarette lighters in the room.
- ❑ Portable heaters are safely barricaded or covered to prevent injury to children.
- ❑ Electrical cords are out of reach of children.
- ❑ There are no permanent use extension cords in the room.
- ❑ Temporary extension cords are not run under rugs or furniture.
- ❑ Temporary extension cords are located where they will not be stepped on.
- ❑ Temporary extension cords are out of reach of children.
- ❑ Temporary extension cords are not overloaded.
- ❑ Portable heaters are three feet away from furniture, curtains and other flammable materials.

Playground

- ❑ Metal sliding boards, stairs, and decks are shaded.
- ❑ Metal sliding boards are facing North.

Utility Room

- ❑ The hot water heater is set at 120°F, or at 140°F when a dishwasher is used.
- ❑ Flammable materials are not stored near the hot water heater or furnace.

General

- ❑ Smoke detectors are correctly installed and are in working order.

Set a date to redo the survey each year. Choose a day that is easy to remember, such as the day you change your clocks and replace your smoke detector battery.

Where to Buy Safety Products

Safety products can be purchased from special stores and catalogs that specialize in safety, such as The Safety Zone. Discount stores such as K-mart and Walmart carry some safety devices, such as child-locks for cabinets and outlet covers.
Other catalogs specialize in safety for day care centers and family day care centers, such as:

Perfectly Safe Catalog
7245 Whipple Avenue, NW
North Canton, OH 44720
(800) 262-2376

The Safety Zone
Hanover, PA 17333-0019
(800) 999-3030

Clinitemp, Inc.
PO Box 40273
Indianapolis, IN 46240
(317) 872-4155

One Step Ahead
950 North Shore Drive
Lake Bluff, IL 60044
(800) 274-8440

Clinitemp, Inc. makes "Stop—Hot!" stickers that are similar to "Mr. Yuk" stickers. When applied to a hot surface, the white sticker changes color to produce a red stop sign. The sticker stays red until the appliance cools.

Where to Get Information About Product and Burn Safety

Office of Information and Public Affairs
U.S. Consumer Product Safety Commission
Washington, DC 20207

Underwriters Laboratories Inc.
333 Pfingsten Road
Northbrook, IL 60062-2096

National Center for Education in Maternal and Child Health
2000 15th Street North, Suite 701
Arlington, VA 22201-2617

Consumer Reports (See your local library.)
Subscription Department
Box 51166
Boulder, CO 80323-1166

Children's Burn Awareness Program
5841 South Maryland Avenue, MC6035
Chicago, IL 60637

Learn Not to Burn Foundation
and the National Fire Protection Association
1 Batterymarch Park
Quincy, MA 02269-9101

Consumer Federation of America
1424 16th Street, NW
Washington, DC 20036

National Safety Council
1121 Spring Lake Drive
Itasca, IL 60143-3201

Your local fire department

Where to Get the APHA/AAP Guidelines

Title: Caring for Our Children: National Health and Safety Performance Standards: Guidelines for Out-Of-Home Child Care Programs

American Public Health Association
Public Sales
Department 5037
Washington, DC 20061-5037
(202) 789-5636

APHA and AAP Guidelines

The American Public Health Association (APHA) and the American Academy of Pediatrics (AAP) have developed, *Caring for Our Children, National Health and Safety Performance Standards: Guidelines for Out-of-Home Child Care Programs*. This standard is being used in the development of many local regulations. Caregivers can benefit from following these guidelines whether they are required or not. The following safety precautions are related to the prevention of fire and burn injuries.

Hot Liquids

- Adults shall not consume hot liquids in child care areas. Coffee and other hot liquids and hot foods shall be placed out of the reach of infants, toddlers, and preschoolers. Hot liquids shall not be placed at the edge of a counter or table, or on a tablecloth that could be yanked down, while the adult is holding or working with a child. Pot handles shall be positioned toward the back of the stove.

Hot Water

- Facilities shall have water heating facilities that are properly connected to the water supply system. These facilities shall be capable of heating water to at least 120°F and shall deliver an adequate amount of hot water at every required fixture. Where a dishwasher is utilized, means shall be provided to heat water supplied to such equipment to at least 140°F.
- Food preparation, handwashing, and bathing facilities shall be provided with hot and cold or temperate running water. Where such water will be in direct contact with children, the temperatures shall not exceed 120°F.

Food and Liquids

- Microwave ovens shall be so located as to be inaccessible to, and unable to be used by, children.
- Heating units for warming bottles and food shall be accessible to adults but not to children. Microwave ovens shall not be used for warming infant bottles or infant food.
- If breast milk or bottle formula is to be warmed, bottles shall be placed in a pan of hot (not boiling) water for 5 minutes, after which the bottle shall be shaken well and the milk temperature tested before feeding. Bottles of formula or breast milk shall never be warmed in a microwave oven.
- In centers, access to the kitchen by infants and toddlers shall be restricted. Access by older children shall be permitted if supervised by staff who have been certified by the child care Nutrition Specialist or center director as qualified to follow the sanitation, disinfection, and safety procedures of the facility.
- Children younger than school age shall be restricted from hot food preparation areas during meal preparation.

Heating Equipment

- Portable, open-flame, and kerosene space heaters shall be prohibited. Portable gas stoves shall not be used for space heating.
- Electric space heaters shall be UL approved, inaccessible to children, and stable; shall have protective covering; and shall be placed at least three feet from curtains, papers, and furniture.
- Heating systems, including the stove, stovepipe, and chimney, shall be inspected and cleaned yearly by a heating contractor, who shall furnish a letter or certificate warranting the heating system to be safe and sound. A protective screen shall be used for the stove. The heating systems shall be checked at the beginning of each cold season by a certified heating contractor. Documentation of these inspections and certification of safety shall be kept on file in the facility.
- Fireplaces and fireplace inserts shall be screened securely or equipped with protective guards while in use. They shall be properly drafted. The facility shall provide evidence of cleaning the chimney at least once a year, or as frequently as necessary to prevent excessive build-up of combustibles in the chimney.
- Heating units that utilize flame shall be vented properly to the outside and shall be supplied with sufficient combustion air.
- Heating units, including water pipes and baseboard heaters hotter than 110°F, shall be made inaccessible to children by barriers such as guards or other devices.

Matches, Lighters and Smoking Products

- Matches and lighters shall be inaccessible to children.
- The use of tobacco (in any form), alcohol, and illegal drugs shall be prohibited on the facility premises during the hours of operation.

Electrical Fixtures and Outlets

- Electrical outlets accessible to children shall be covered with child-resistant covers or be of the child-proof type. Shock stops (safety plugs) shall be installed on all unused outlets.
- No electrical outlet shall be located within reach of a water source unless it is protected by an approved ground fault circuit interrupter, which shall be tested at least every three months using the test button located on the device.
- No electrical device or apparatus accessible to children shall be located so that it could be plugged into an electrical outlet while in contact with a water source, such as a sink, tub, shower area, or swimming/wading pool.
- The use of extension cords shall be discouraged; however, when used, they shall not be placed under carpeting or across water-source areas. Electrical cords (extension and appliance) shall not be frayed or overloaded.
- Electrical cords shall be placed beyond children's reach.

Smoke Detectors

- Smoke detectors shall be placed on each floor, no more than forty feet apart, installed on or six to twelve inches below the ceiling. Smoke detectors shall be tested monthly, and the batteries replaced at least yearly.

Fire Extinguishers

- Fire extinguishers shall be installed and maintained. The fire extinguisher should be of the A-B-C type. Size and number of fire extinguishers shall be determined after a survey by the fire marshal or by the insurance company fire loss representative. Instructions for use of the fire extinguisher shall be posted on or near the fire extinguisher.

Emergency Planning

- The staff shall demonstrate the ability to locate and operate the fire extinguishers.
- Children shall be instructed to drop and roll when garments catch fire. Cold water shall be applied to burns immediately. The injury shall be covered with a loose bandage or clean cloth. Children shall be instructed to crawl under smoke.

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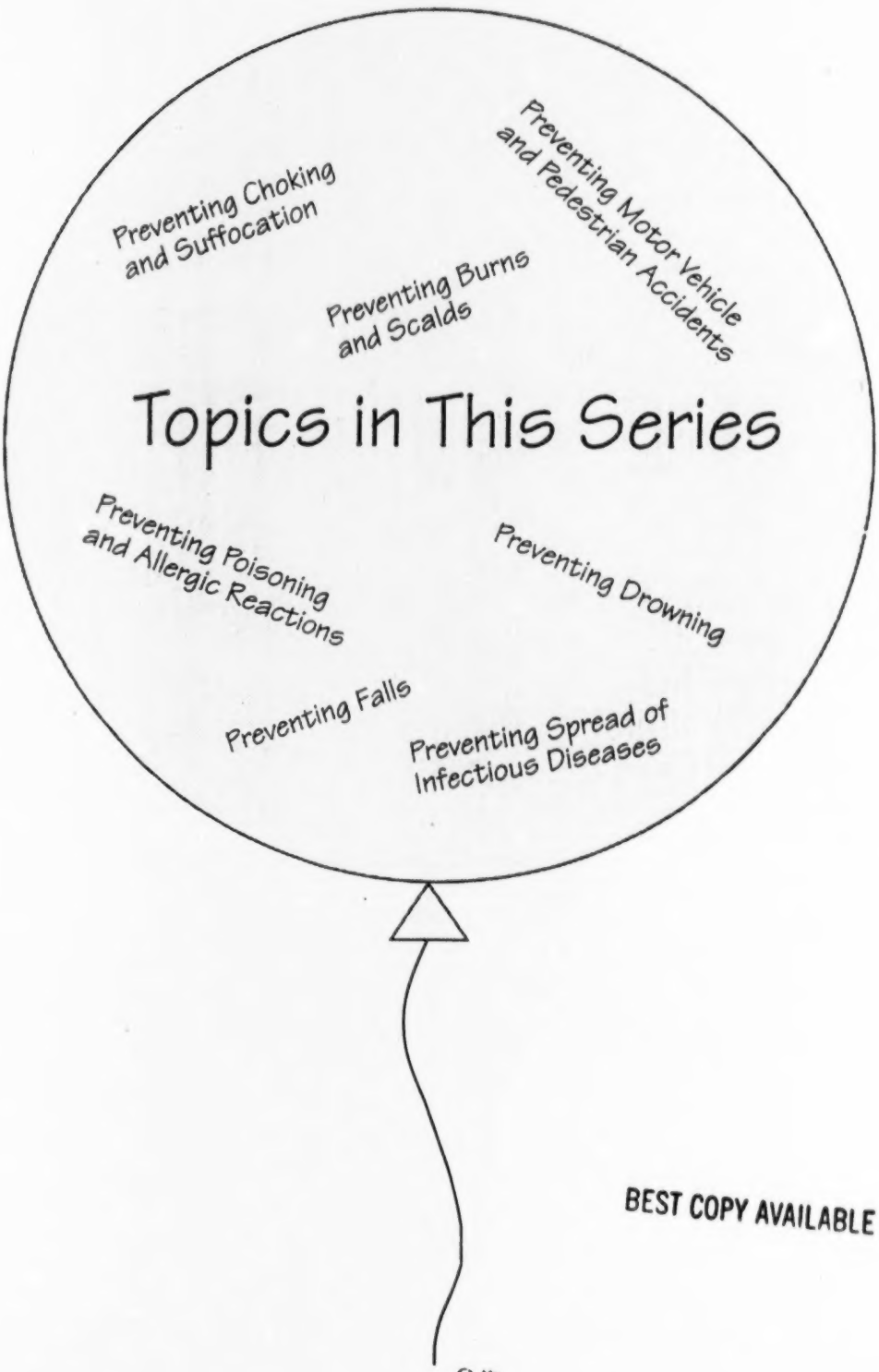
Injury Prevention for Young Children
Preventing Burns and Scalds

Top Ten List

1. Install and maintain smoke detectors.
2. Keep smoking materials out of sight and out of reach.
3. Lower the temperature on your hot water heater to 120°F.
4. Don't use a microwave to warm an infant's food or bottles.
5. Don't use baby walkers.
6. Don't drink hot coffee or tea when children are around.
7. Separate the cooking area from play areas.
8. Install barriers around heaters, stoves, and other hot surfaces.
9. Don't use electric curlers and curling irons around young children.
10. Don't use portable heaters.


Preventing Choking and Suffocation
Preventing Motor Vehicle and Pedestrian Accidents
Preventing Burns and Scalds
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Preventing Poisoning and Allergic Reactions
Preventing Drowning
Preventing Falls
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